PT. SINKO PRIMA ALLOY

TAMBAK OSOWILANGUN NO.61

PERGUDANGAN OSOWILANGUN PERMAI BLOK E7-E8

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Precautions & User Responsibility

Please read the User Manual carefully before using this product. The operating procedures specified in this User Manual should be followed strictly. This manual describes in detail the operation steps that must be noted, the procedures which may result in abnormality and possible damage to the product or users. Refer to the following chapters for details. Failing to follow the User Manual may cause measuring abnormality, device damage, or personal injury. The manufacturer is NOT responsible for the safety, reliability, and performance issues of such results due to the user's negligence of this manual for use, maintenance, or storage. The free services and repairs do not cover such faults either.

1.1 Precautions

Please consider the security and validity before putting the product into use:

1. Before using the product, please read detailed the product service manual.
2. If you check or use the product and find a fault or can not be used, you should request a repair.
3. Make sure to use the marked technical parameters of the power. Any unqualified personnel can not be allowed to repair the product.
4. Pay attention to explosion proof, it can not be used in the presence of flammable anesthetics.
5. Medical air and air for driving surgical tools shall not be provided for applications such as general workshop use, motor repair workshop use, spray painting, inflation, reservoirs for pressurization of hydraulic fluids, sterilizing systems, or pneumatic control of air conditioning. Medical air and air for driving surgical tools shall also not be provided for any other application which can impose unforeseen demands and could compromise the availability and/or quality of air for the intended purposes.
6. The intake of the ambient air for compressors shall be located where there is minimal contamination from internal combustion engine exhaust, vehicle parking, access areas, hospital waste and disposal systems, vacuum system exhausts, vents from medical gas pipeline systems, anesthetic gas scavenging systems, ventilation system discharges, chimney outlets and other sources of contamination. The inlet shall be provided with means to prevent the ingress of, for example, insects, debris, and water at the location of the intake(s). consideration should be given to the potential effects of prevailing winds on the location of the intake(s) which should be remote from chimney outlets.
7. All compressor units and all proportioning units shall be connected to an emergency electrical power supply

~ Alternating Current (AC)

| ON (power)

○ OFF (power)

I Class I

Type B

1.2 Responsibilities

The product installation, operation, maintenance and repair must according to the manual specification, and it must be regularly checked. The user can not use the defective product, the parts which have been damaged, lost, distorted, or contaminated must be replaced immediately.

Without the written approval of our company, any person can not make changes to the product. If users are used improperly, or damage is caused by repair, who should assume full responsibility for the consequences.

Technique Specification & Use Explanation

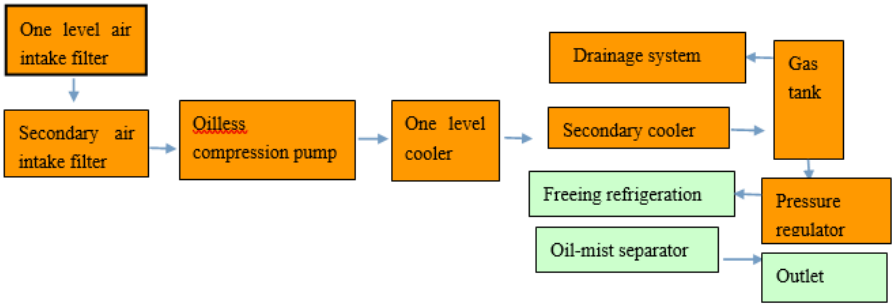
2.1 Usage

Medical Air Compressor (MCA01) are assembled by adopting imported components, with oilless, dry, pure compressed air. high quality, low noise, good appearance, convenient to use, and so on, and can meet user requirements it is mainly used as the ideal gas source in treatment by matching with all sorts of domestic or imported respirators, anesthesia machines, CPAP, oral spraying device and so on.

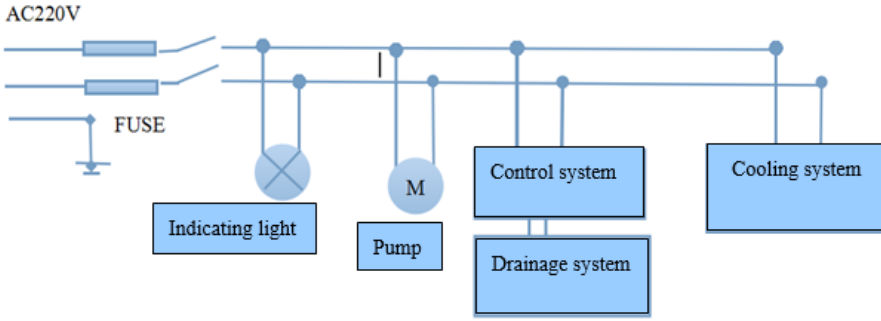
Remark: The gas generated by the medical air compressor belongs to breathing gas and breathing energy gas, in meanwhile can be as driving energy for the support system of life. The gas can't be used in a stand-alone way, also can be worked with relative equipment, and the air compressor was supposed to as part of the gas supplied.

2.2 Medical Air Compressor Work Principle

The air is compressed to high-temperature high-pressure air by a compress pump, then coded by a cold system, then the water will be pulled out by the valve of the oil-water separator, then export the normal pressure air by pressure reducer. (Refer to Drawing 1 & Drawing 2)



Drawing 1



Drawing 2

2.3 Technique Date

Model	MAC-01
Output Pressure	0.25-0.4MPa
Continuous Flow	60LPM
Peak Flow	>120LPM
Noise	≤55dB(A)
Power Source	AC 220V, 50-60Hz (Optional: AC 110V, 50-60Hz)
Power	500W
Thermal Protection	120°C
Pressure Display	Pressure Gauge

2.4 Installation

1. When installation the ground should be smooth.
2. Before installation and use, take down all the fixing devices of the product.
3. To avoid the damage caused by the non-normal situation or to ensure the safety of the user, the electric supply should have a very good grounding system.
4. The electric power jack should meet the electric rating, have a good grounding, and can not have situations where the jack reed is not complete or start, which is to avoid the situations of bad connector fire.
5. The rating of the electric power supply wires should be on speaking terms with the maximum electric current of the product, which avoids the suddenness caused by the heat of the power wire for a long time.
6. When using the product should have a good ventilation environment, can not use the product when the air is in condition of combustibility or causticity

7. Make sure the product can work for a long time, high efficiently, and stably, should clean the filter on time (suggest one week)
8. If the medical Air Compressor has not been used for a long time, it should be stored in conditions of a temperature of -10℃～+40℃, relative humidity not more than 80%、atmospheric pressure of 500hPa～1060hPa, no causticity air and good ventilation inside room.

2.5 Construction

The indicator light, button, and pressure meter are as follows:

① Control panel
② Crust
③ Support frame
④ Flexible casters
⑤ Air intake filter
⑥ Cooling system
⑦ Oil-mist separator
⑧ Outlet
⑨ Hours meter
⑩ Net power input/output port

2.6 Operation process

1. Get on the electric power, open the control switch, and then the indicator light shines; the compression pump, cooling system (fan), freezing system, and hours meter should be able to work properly.
2. The pressure meter will go up slowly, which shows the pressure will be stable in the scope of 0.3MPa ~ 0.4MPa.

3. The automatic drainage system works, and the pressure meter indicates the pressure is stable; the vent exhausts freely, which shows the product works normally, and then can work with the matched products.
4. When stopping, please turn off the electric power switch, turn off the web power, and remove the air and water from the whole tube.

Capability Examine

3.1 Whole machine examine

Connect correctly, put on the electric power switch, and the indicator light shines which shows the product is in work condition. The pressure can be from "0" and go up stable to 0.3 ~ 0.4MPa (used pressure), then show the pump can be able to work properly.

Note： According to different matched oxygen sources, the output pressure can be adjustable.

When the pressure is lower than 0.2MPa, please maintain in time.

3.2 Cold system and freezing system examine

When put your hand on the bottom air exists, if there is hot airflow from the box, then shows the fans work normally.
The cooling fan and refrigeration chips should work normally when the cooling system working.

Note: when the cold system has a problem, should stop immediately and then be used after well maintained.

It will cause cooling failure when cooling the fan for the cooling system with failure, long hours are likely to freeze.
Device with automatic deicing function

3.3 Electric power examine

Put on power, when the indicator light shines stable, then show the power is got through well.

3.4 Automatic exhaust examine

When gets on power, the pressure meter goes up and then goes down, and can show stably within the normal scope, then show the overflow valve works normally.

Troubleshooting

Problem	Reasonable cause	Solve measure
Pressure on the high side or on the low side	1. The decompress system, Pressure system are not adjusted properly 2. Is The pressure meter damaged or big tolerance 3. The pipe breaks or loose off.	1. Adjust relevant pressure 2. Examine or replace the pressure meter 3. Examine or replace the connecting pipe
Pressure meter no pressure	1. Electric power off, fuse break. 2. Compressor pump does not work 3. Pipe damaged or broken 4. Overheat protect as the too-high temperature	1. Examine the power or replace the same specification fuse 2. Examine the compressor pump or power 3. Examine the connecting pipe 4. Check if it is whether overheats or not, the blower whether works or not
Water on the high side	1. Drainage System failure 2. Improper adjustment 3. Cooling system failure	1. Replace or adjust 2. Check the adjustment of the pressure 3. Check cooling system
Pressure gauge showing the pressure but no gas output	1. Decompress system wall up 2. Output way wall up	1. Clean up decompress valve 2. Check the connect or output way
The compress pump cannot start up	1. Electric power supply off, voltage too low 2. The compress pump does not supply electric power 3. The compress pump has a problem 4. Fuse/switch fault	1. Check the power supply 2. Check the power supply 3. Replace compress pump 4. Check fuse/ switch

Others

5.1 Notes

1. When the Medical Air Compressor arrives, should take off the package to check the whole machine and examine whether it is damaged or not.
2. Check whether all the parts are complete or not.
3. Take down the fixing parts according to the mark or instructions, then use them.
4. After using it for some time, should clean and maintain the Medical Air Compressor. (Suggest clean once a week).
5. Supply service and maintenance for free within one year after the product is sold, (can supply maintenance for the product all life).

5.2 Normal working conditions, Transport and storage conditions Location of a supply system

5.2.1 Normal working conditions

Environment temperature：- 5℃ ~ 40℃

Relative humidity: Not more than 80%

Atmospheric pressure: 860hpa ~ 1060hpa

Used power pressure: a.c.220V±22V, 50Hz±1Hz

5.2.2 Transport and storage conditions

Environment temperature: - 40℃ ~ 55℃

Relative humidity: Not more than 93%

Atmospheric pressure: 500hpa ~ 1060hpa

Should store in the inside room of no causticity air and good ventilation. The transport packing will be according to the contract requirement and have a proper picture or mark, transportation avoids rattling.

5.2.3 Location of Supply Systems

Gas and non-cryogenic liquid cylinder supply systems shall not be located in the same room as medical air compressors, oxygen concentrators, or vacuum supply systems.

The location of supply systems shall take into account potential hazards (e.g. contamination and fires) arising from the location of other equipment or other supply systems within the same room

These locations shall be provided with drainage facilities. The ambient temperature in rooms for supply systems shall be in the range of 10℃ to 40℃.

MEDICAL AIR COMPRESSOR

MAC-01

Manual Book

Elitech® TECHNOVISION